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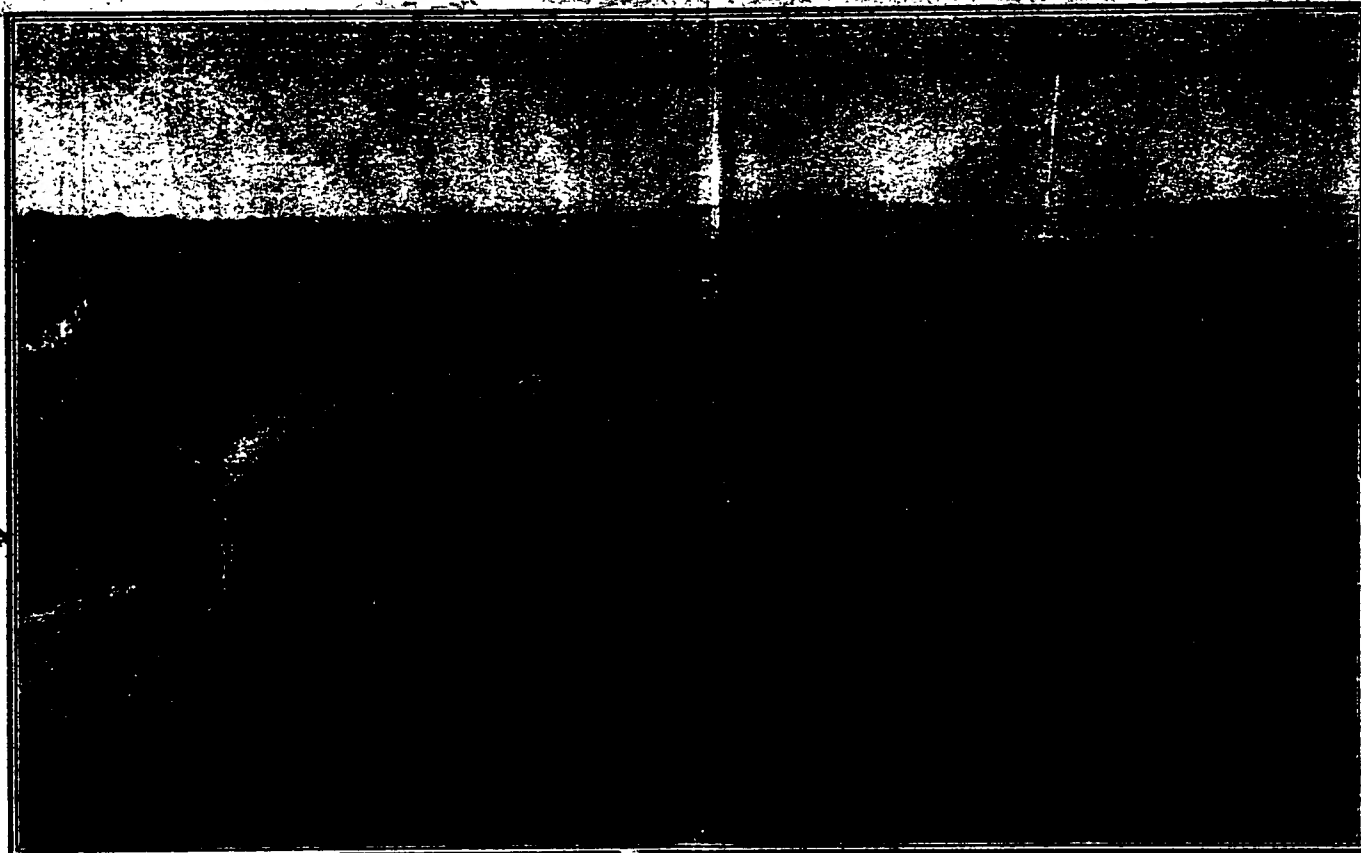
A STORY OF

WHEAT PRODUCTION

IN

**SOUTHERN ALBERTA
CANADA**

**PRESENTED BY
THE CANADIAN PACIFIC RAILWAY
COLONIZATION DEPARTMENT
CALGARY, ALBERTA
1910**



Winter Wheat Crop in Gleichen District, 1909.

INTRODUCTION

In the year 1894, the Government of the Dominion of Canada reserved from sale and homestead entry a tract of land containing some millions of acres located along the main line of the Canadian Pacific Railway, immediately east of the City of Calgary, in Southern Alberta, Canada. This reservation had as its ultimate object the construction of an irriga-

tion system to cover the fertile Bow River Valley. It was realized that this could only be successfully accomplished by so administering the lands embraced in the tract that the promoters of the proposed irrigation enterprise would not be hampered by any vested interests created through the alienation from the Crown of any of these lands. This undertaking, the greatest of its kind on the American continent, is now being pushed towards completion. It is safe to state that if this wise precaution had not been taken early in the history of Southern Alberta, it would have been impossible to have carried out the gigantic undertaking which the Canadian Pacific Railway Company now has in hand, and which is not only now increasing the value of land tributary to Calgary

on all sides, but is transforming this city into the most flourishing agricultural centre in Canada.

While subsequent events have amply justified the reservation of this enormous area of land, so fertile and so favorably situated, immediately adjoining the largest city in Alberta, and traversed by the main line of Canada's transcontinental railway, a hardship was no doubt inflicted upon the early colonists in Southern Alberta who were prevented from settling in this favorable locality and were obliged to go farther back for suitable locations. These pioneers, however, are some of those who are looking for a new home, and they will appreciate the opportunity presented by the land which is now being offered for settlement.

This pamphlet will deal specifically with the production of Winter Wheat in Southern Alberta, and in view of the fact that the winter wheat fields of the North West, and the Pacific States lie in fairly close proximity to Southern Alberta, it is natural that these parts should be of especial interest to the winter wheat farmers of that area. Being the case, it would be almost superfluous to go extensively into the merits of Winter Wheat. Every winter wheat farmer in the Western United States is fully cognizant of the enormous advantages of winter crops, and furthermore he knows what winter wheat means in regard to climate. He realizes that winter wheat is the safest crop grown in the United States, and gives more uniform and satisfactory results than any other line of agricultural production. He appreciates the fact that he is not at the mercy of the vicissitudes of seasons. The seeding period comes during the warm summer season. Winter Wheat ripens early and, with any sort of adequate equipment, can be handled with the greatest ease.

Again, where farming is carried on upon summer-fallowed land, the economy in handling the land is considerable, and a vast saving is effected. The winter wheat farmer starts in to summer-fallow as soon as he can comfortably get on the land. A week or two one way or the other makes no material difference to him. Surface culture follows summer-fallow, and seeding takes place before harvest. There is no expensive crowding of teams and hired help to get the spring work done in time, and, later on, to get the harvest completed within a few days. All the help can be engaged for the whole summer season, and the farm work can be systematically pursued with the certainty that nothing will intervene to prevent the completion of each particular farming operation in good season.

KING WHEAT.

It is a trite saying that "Wheat is the basis of all civilized existence." While there are more rice eaters than wheat eaters in the world, wheat is the chief grain food of the white man. There has been an almost universal increase in the individual consumption of wheat of late years. A few years ago the individual wheat consumer annually required six bushels of grain. The individual consumption today however, is seven bushels per year. And while in 1871 the bread eaters of the world numbered three hundred and seventy-five millions; today they number five hundred and seventeen millions. In spite of the ever-increasing crop area of wheat, the point is gradually being reached when the world's production of wheat will not more than keep pace with the demand. While the production in the United States has doubled during the past thirty years, the tendency at the present time is not towards any continued expansion. At the same time the population of the United States is increasing tremendously, and the point will soon be reached when that great country will become an importing instead of an exporting country. Less than a century ago New York State was the chief wheat producing area of the United States, a fact that enabled Rochester to acquire the name of the "Flour City." The latter distinction is now held by Minneapolis located some 1,500 miles further west. The time will come when the City of Calgary will become the great flour producing centre of the New North West.

Wheat raised in Southern Alberta contains the largest amount of nutritive material of any wheat raised anywhere in the world. The soil of Southern Alberta is strongly impregnated with lime and gypsum, which form essential elements for both the straw and kernel of the wheat. The great length of the summer day in these higher latitudes, provides an extraordinary amount of growth producing heat, which, together with the favorable soil conditions, will make Southern Alberta the leading hard wheat producing field of the American continent.

THE DAWN AND EVOLUTION OF WINTER WHEAT PRODUCTION IN SOUTHERN ALBERTA.

There can be little doubt that the enormous expansion of Winter Wheat production in Southern Alberta constitutes one of the most far-reaching Canadian agricultural developments of modern times. Her annual increase of crop area is regarded as a freak in statistics. Never in the history of

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Steam and Gasoline Tractors at Work near Bassano.

Canada has any single crop in any part of the country come to the front with such giant strides as has Winter Wheat in Southern Alberta.

Those who appreciate the large profits and small risks in the production of Winter Wheat will not be surprised at this development, but will rather marvel that it was not initiated years ago. The growing of winter wheat in Southern Alberta is not in any sense in the experimental stage. The crop has been grown successfully for the past twenty years, but owing to adverse commercial conditions, this crop attracted little or no attention. It is not to be wondered at that such was the case.

It is no exaggeration to state that Southern Alberta was discovered by winter wheat growers from the Western States, who quickly saw the enormous possibilities ahead of this industry in Southern Alberta. Every effort was made by the Southern Alberta "cow puncher," to discourage these men from settling there. Yarns were related of drouths and all the agricultural plagues in the calendar. It naturally did not suit the rancher to have the prairie lands plowed and fenced.

Many of the winter wheat men from south of the line, however, had been through the same experience where they came from and took these calamity stories with "a grain of salt," and decided to settle in Southern Alberta, in many cases buying ranching holdings at high prices.

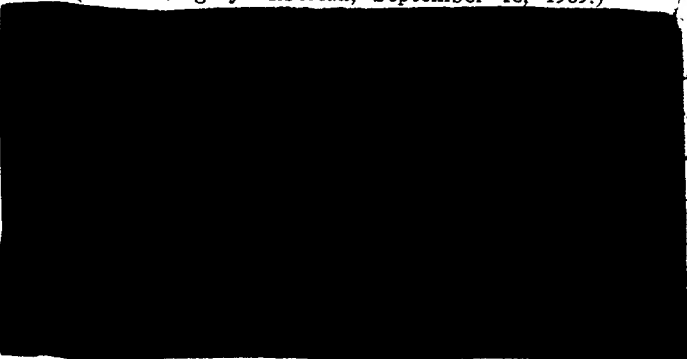
The first official notice which seems to have been taken of Winter Wheat in Southern Alberta was in a report of the Department of Agriculture of the North West Territories for the year 1901, where the following statement from Mr. C. Kettles, of Pincher Creek, one of the pioneers of Winter Wheat production in Alberta, is reproduced:—

"I have been growing Winter Wheat with unvarying success for the past 10 years, having threshed from 40 to 63 bushels per acre, according to the season. My custom has been to summer-fallow the land, plowing deeply in June, and cultivating weekly with disc harrows afterwards. I sow between the middle of July and August. I find it makes no difference whether we have snow to cover the wheat plant or not, as the rank growth of the wheat itself is sufficient mulch. Winter Wheat in Southern Alberta ripens between

the 20th of July and the end of August, according to the season. . . . I have experimented thoroughly with Winter Wheat, and find it to be the safest, hardiest and surest crop we can grow in Southern Alberta, as well as giving the greatest possible yield, being entirely free from smut, as well as giving the farmer the extra advantage of time, and is a sure way of cleaning weedy, dirty or worn-out land. The ploughing and seeding being done after the spring crops are in and before haying commences, gives the farmer time to haul his manure and clean up generally. In fact, I cannot recommend too highly the growth of Winter Wheat in Southern Alberta."

Winter Wheat culture is reaching out into all portions of Southern Alberta and the following from the Calgary Albertan of September 16, 1909, announces the possibilities of Bassano as a wheat centre.

(From Calgary Albertan, September 16, 1909.)



The following letter written by Mr. L. P. Strong, the greatest authority on grain in Alberta deals with the same sample. Calgary, Alta., Sept. 16, 1909.

The Canadian Pacific Irrigation Colonization Co., Calgary.

Dear Sirs,—I have before me the sample of Red Winter Wheat grown at Bassano by the Canadian Development Company, which was left on my desk yesterday. To my knowledge this is the first Alberta Red Winter Wheat grown in the Bassano district or the Central Section of the Canadian Pacific Irrigation Block. I have examined this sample carefully and I unhesitatingly state that it is one of the best samples of Alberta Red Winter Wheat that I have ever seen. The color is almost absolutely perfect and the weight is 66 pounds per bushel, which is in itself almost phenomenal. If such wheat can be grown regularly in the Bassano district, as an elevator man I can only state that we will be in there to take care of it. Yours very truly,

ALBERTA PACIFIC ELEVATOR COMPANY,
L. P. STRONG, General Manager.

"ALBERTA RED."

The earliest variety of Winter Wheat produced in Southern Alberta was "Dawson's Golden Staff." This variety, however, was a heavy yielding, soft wheat, and did not quite suit the requirements of the millers.

The settlers who were flocking in from the United States conceived the idea of producing a hard winter wheat, and for that purpose small quantities of "Kansas Turkey Red" were imported into Alberta. This variety of wheat, variously known as Turkey Red, Kansas Red, Alberta Red, and many other names, is one of the oldest of the common varieties of wheat. Its origin is lost in antiquity. It is known that it has been grown in Southern Russia and the neighboring European countries for hundreds of years. From there during the past century it was brought to the central western states. Its advent was one of the greatest boons to that region. Kansas a large part of which was long regarded as too dry for profitable agriculture, has become the largest wheat growing state in the union, largely through this variety. Nebraska and other states in that region have been similarly benefited. It has been tried in Ontario and the eastern states, but not with success. The climate there is too wet, and as a result the straw breaks down. Here in Alberta, conditions were ideal for the Turkey Red. It had always been grown in a dry climate. Alberta is more like its original home in southern Russia than Kansas is, being cooler and not so subject to hot winds. The result has been that since the introduction of the variety into Alberta a great improvement has taken place in it. Samples of Alberta grown Turkey Red taken back to Kansas, have been pronounced emphatically by life long growers of it down there, to be an entirely different variety, so great has been the improvement. The first wheat brought in weighed 56 lbs. to the measured bushel. The crop produced from it weighed 64. In 1908 the writer tested one sample that weighed exactly 67¾ lbs. per bushel, and large quantities weighing 67 lbs. are quite often met with. It is doubtful if there is anywhere in the world a wheat grown that equals it in weight and plumpness.

"Alberta Red" today stands at the head of all wheat produced on the American continent. It has become famous in the world's most exacting markets as superior to nearly all others, and is considered equal to the wheats grown in Hungary and Bohemia. This is true either when used alone for grinding, or when the flour manufactured from this wheat is blended with given quantities of other pretentious makes, represented as peculiarly choice because made from extra fancy grades of spring wheat grown elsewhere.

Just what the Alberta Red has done for Alberta cannot accurately be estimated. To anyone, who travelled over the country between Calgary and the international boundary before its introduction, and who again makes the journey in the year 1910, the change is quite evident. It is indeed marvellous. Then there were practically no towns, the few that did exist were unprogressive and depending almost entirely on the ranching industry. Now you find a bustling town every few miles and at each several elevators filled to the roof with wheat. Then one could drive for miles over the prairie without ever seeing a house or being obstructed by a fence. Now the land is all fenced up; on nearly every section is a comfortable farm house and everywhere the land is producing wealth for the inhabitants. Then Calgary was an insignificant cow-town of four or five thousand people, now it is a thriving metropolis, with a population of over thirty-one thousand, and the centre of all this flourishing country. It would be folly to ascribe all this development to Alberta Red. But this much cannot be denied, that it was one of the most important factors that brought about this great change.

The prospects for hard winter wheat growing in Alberta were never as bright as at the present time. The method of cultivation for its production is becoming better known. Larger yields are being produced than when it was first tried. During the past year numerous well authenticated instances of sixty bushels per acre have come under the writer's personal observation. The acreage devoted to its production is rapidly increasing. It is spreading to new districts and being grown successfully where previously considered a failure.

WINTER WHEAT AND LAND VALUES

Southern Alberta is at present in the transition stage. The early pioneer was the ranchman. In the course of years the wheat farmer took possession, and the rancher is today being driven out of business by the latter. There can be little doubt but that one of these days, the wheat farmer will yield place to those who will engage in dairying and diversified farming, and thus take the greatest possible quantity of wealth out of the soil. The fight for supremacy between the rancher and the wheat farmer, and the wheat farmer and the "mixed" farmer is not a fierce warfare, where "might is right." It is a commercial development. The land owning rancher is driven out of business when his holdings are worth more to the wheat farmer than to himself, and the wheat farmer retires when the diversified farmer gives to his land a value beyond what the continuous cropping of wheat will yield.

Evidences of the prosperity of the farmer on the continent

of America have been multiplied and now assume an importance in the world of finance, trade, transportation and manufacturing which has attracted world-wide attention. Profound changes have taken place in the economic results of the farm, which have excited the reflections of many students upon economic principles accompanying, if not underlying, agriculture.

Perhaps the most far-reaching factor in the changes above indicated has been the substantial exhaustion of the free and cheap lands of the United States Government and railroads, fit for agricultural purposes without irrigation. The end of this land has been reached so suddenly that it has given a sort of shock to the whole economic structure of agriculture. There can be no doubt, that one of the features of the early part of this century is the higher valuation of farm lands in America. One cause for this is undoubtedly the fact that up

normal value, and everything points to even a further and permanent increase in price. Dollar wheat, that at one time looked like a fabulous price, has come to be the accepted thing. That is not to say that wheat for future delivery may not at some time sell below the dollar line, or that the cash article may not dip below occasionally. But, broadly speaking, and considering the matter from the standpoint of money return to the farmer and the value that is to be represented by the wheat crops as the farmers take them from the soil, the dollar mark will be the measuring medium until such time as the world again produces bountiful crops. That bountiful crops will necessarily make prices lower, does not, however, follow, for the world is increasing its population and raising its standard of living year after year and more people are eating white bread each succeeding season.

This country's winter wheat lands, capable of producing higher yields per acre than the lands of similar character in the United States, are sold at less than one quarter the price per acre asked for the better class of winter wheat lands in

the Pacific States. It is, therefore, evident that Southern Alberta winter wheat lands are sold vastly below their real value, and thus furnish an investment second to none. The fact that Pacific Coast wheat growers are perhaps the most uniformly prosperous class of farmers that can be found anywhere, clearly demonstrates the fact that their lands pay a high return on the valuation, and it therefore becomes clear that Alberta lands are on the market today at prices vastly below their actual producing value.

OUR WHEAT LANDS.

The outstanding feature of the Company's wheat area is that it ranks as a "hard" wheat producing district. As has been explained in the preceding pages, the demand for hard wheat is steadily increasing, while, on the other hand, the area of hard wheat land is very limited. Hard wheat production is confined to a strip of country extending from Western Canada south through Western Minnesota, the Dakotas, Western Nebraska, Kansas, and part of Oklahoma. Hard wheat suffers for its production a soil rich in nitrogen and receiving only a limited quantity of moisture, combined with a short growing season and dry atmosphere. It therefore follows, that Southern Alberta, which possesses all these characteristics, is in reality the "Last West" where hard wheat producing lands can be obtained. With the development of the Oriental markets, with which Calgary is in direct communication, for hard wheat products, an era of agricultural prosperity, which has seldom been equalled in any part of the globe, is now dawning in this portion of the Province of Alberta.

The winter and spring wheat lands belonging to this Company are the non-irrigable agricultural lands of the Three Million Acre "Irrigation Block." There is one feature in connection with these lands which should not be lost sight of. It is the Company's earnest desire to dispose of its lands to actual settlers. The speculative element cannot, of course, be altogether eliminated in the Company's sales transactions, nor is it perhaps desirable that it should be. The farmer who buys land with a view to actual and immediate settlement is, however, just as much interested in ultimately increasing land values as is the speculator. The bulk of the Company's winter wheat lands, as above stated, are located within the Irrigation Block. They are simply lands situated at a somewhat higher elevation than the Company's water distributing system. Any agricultural lands that cannot be reached by irrigation are classed as "winter wheat" lands. In some cases these lands are surrounded on all sides by irrigated

lands, that will be disposed of for mixed farming purposes and generally in small areas. It is scarcely necessary to point out what this means. The two things that give value to land are, first, the ability of the land to produce, and, secondly, settlement. There can be no question as to the producing abilities of our wheat lands, and in view of their proximity to the Company's irrigated holdings, they are located in what ultimately will be one of the densest agricultural settlements in America. We are, therefore, in a position to offer investors and farmers an opportunity to purchase lands at a nominal figure that will, within a few years, rank among the most valuable agricultural areas in America. Not alone will they pay for themselves very rapidly in the crops they produce, but by virtue of their peculiarly favorable location they command a speculative value entirely apart from their agricultural worth.

Farm production is governed entirely by the quality of the soil, climatic conditions, and method of cultivation. The latter lies largely in the hands of the farmer, but we shall endeavor to show that so far as the natural advantages of Southern Alberta for wheat growing are concerned, our wheat lands are second to none on the continent.

Climate is generally divided into three classes. Humid conditions existing where the rainfall is over 18 inches per annum; arid conditions where the rainfall is less than 10 inches per annum, and where the precipitation lies between these two divisions, the climate is said to be sub-humid or semi-arid. The climate of Southern Alberta falls within the latter category, as does the greater part of the United States lying between the Mississippi River and the Pacific slope, and practically the whole of Western Canada lying east of the Rocky Mountains. It has been conclusively proven that semi-arid conditions are most favorable for the production of high class wheat. The humidity of the air is a feature of climate often overlooked, but, nevertheless, it has an important influence upon plant growth. Its effects upon the wheat plant are generally unfavorable if long continued, and particularly if it occurs during the time of ripening. Great humidity retards maturity, interfering with the production of proteids, and, therefore, indirectly softens the grain, and through the overproduction of starch, gives it a white color, and presents conditions favorable for the attacks of various fungous pests. It is not so much the great precipitation that gives the inferior quality to the grain in humid areas, as the prevailing humidity of the air and the lack of sunshine. It, therefore, follows that with proper soil conditions, the climatic features of the sub-humid districts are actually necessary for the successful production of wheat.



Bow-Valley Threshing Outfit near Stathmore.

Southern Alberta lays claim to possessing the finest wheat lands in America, on the following grounds:—

(1) Low annual rainfall that prevails, only sufficient moisture falling to successfully mature the grain. (2) The very large proportion of this rainfall which occurs during the growing season. (3) The character of the precipitation which occurs in the form of thunder storms without fog or mist. (4) The prevailing clearness and dryness of the atmosphere and the preponderance of sunny and warm days.

It is recognized that there are certain substantial agricultural advantages in connection with lands located in sub-humid districts. It is a fact that the richest lands in America lie in the vicinity of the 100th Meridian, where the rainfall is the lowest. The reason for this is perfectly clear. In humid conditions, the soil is continually subjected to leaching by heavy rains. The water penetrates the sub-soil, washing with it valuable plant foods, which it is thus impossible to retain near the surface, where it is required for the sustenance of the crops. This accounts for the worn-out lands of the Eastern States, as compared with the lands in the semi-arid districts of Oregon, Washington and Idaho, that have been cropped with winter wheat, year after year,

without showing any signs of depletion. The soil of the Irrigation Block is amongst the richest in America and retains all the valuable constituents that nature has stored up during past centuries. It only awaits the plow to yield up its treasures.

Perhaps there is no cereal that lends itself better to satisfactory production under limited rainfall conditions than hard wheat. The most important agricultural development of recent years has undoubtedly been the improved systems of tillage with a view to utilizing the enormous areas of excellent agricultural lands on the continent of America, located where the rainfall is too small for successful agriculture. To grow crops satisfactorily and profitably under such conditions requires very careful study. Experience and experiment conducted under the sub-humid conditions of Alberta and in the semi-arid states of the Union, demonstrate the fact clearly, that the preparation of a soil reservoir at a good depth for months before seeding, the suitable selection of crops, the seed of which has been grown under dry-farming conditions, all largely determines the success of farming operations with a limited rainfall where irrigation cannot be practiced.

PROFITS IN WINTER WHEAT CULTURE.

Mr. T. H. Woolford, of Spring Coulee, produced 6,000 bushels of wheat on 100 acres, being at the rate of 60 bushels per acre. The gross income was \$3,600, the cost of production \$7.00 per acre, amounting to \$700.00; the net income in this instance amounting to \$2,900, being a profit at the rate of \$29.00 per acre.

The year 1907 was distinctly an off season all over Western Canada, and to some extent the Western States. While there were no actual crop failures, the yields were uniformly far below the average for the past decade. Nevertheless, Mr. Sarcho, of De Winton, had an average yield of 48 bushels of winter wheat to the acre; S. Elliott, of De Winton, 58.33 bushels per acre; W. F. Hoose, De Winton, 47.90 bushels per acre; J. Smith, Nanton, 50 bushels per acre; G. D. Sloan, Cayley, 64.20 per acre; J. Robinson, of Cayley, 53.25 per acre; W. L. Busher, of Mosleigh, 58.28 per acre. These yields were, of course, far above the average for that season, but demonstrate the possibilities, even in an unfavorable year, where good farming methods prevail, of obtaining satisfactory results.

There are cases where "the exception proves the rule." The above named farmers had no special monopoly on high yields, nor were their farms any better than thousands of others. They simply had their land well prepared and their seeding and other work done at the proper time.

Reports from points in Southern Alberta include the following threshing results from the winter wheat crop of 1908. Mr. A. E. Burnett, south of Calgary, sowed 71 acres on the 20th of September, 1907, on summer fallowed land which had raised one crop previously. From this field he threshed 4,280 bushels of winter wheat, being at the rate of 60 1/4 bushels to the acre. The straw averaged six feet six inches in length. Mr. C. Nathe, residing some 40 miles from Mr. Burnett, sowed 60 acres of land to winter wheat. The wheat weighs 63 lbs. to the bushel, and made a yield per acre of 64 1/4 bushels. Mr. P. A. McAully, of Crossfield, some 14 miles north-east of Calgary, in the Bow Valley, threshed 596 1/4 bushels of Alberta Red winter wheat from 9 acres. The wheat graded No. 1, and was sold at 76c. per bushel, making a return of \$49.35 per acre. Mr. J. A. Kearney, of Strathmore, secured an average of 50 bushels per acre from 55 acres. This crop was sold for seed at \$1.50 per bushel, his net return being \$64.00 per acre.

A few years ago R. B. Bower came to Southern Alberta and settled on a farm located some 25 miles south-west of

Strathmore. In the year 1904 he broke 41 acres of sod, sowing Alberta Red wheat thereon. The following year he harvested 1,845 bushels, which he sold for seed at \$1.00 per bushel. In the spring of 1906 he carefully ploughed and sowed the same patch of 41 acres to oats, and threshed 2,460 bushels in the fall, which he disposed of at 40c. per bushel. In the year 1907 he summer-fallowed the same area, seeding it to Alberta Red in August. When threshing was completed the field averaged 50 bushels to the acre, which he sold at 75c. per bushel. A careful survey was made of the field by a trustworthy man, and it has been found to contain exactly 41 acres.

To summarize the result of Mr. Bower's efforts during a period of four years, from this particular field of 41 acres, we find that he received \$4,376.50, which is made up as follows:—

1905—1,845 bushels wheat at \$1.00 per bus....	\$1,845.00
1906—2,460 bushels oats at 0.40 " " ...	984.00
1908—2,050 bushels wheat at 0.75 " " ...	1,537.50
Total.....	\$4,376.50

The above indicates that during the course of four seasons, Mr. Bower realized \$106.25 per acre.

This, however, is not the entire record of Mr. Bower. He had a field of Alberta Red Winter Wheat this year, measuring 229 acres, from which he has averaged 45 bushels to the acre. The grain is of extra good quality, weighing 65 lbs. to the bushel from the machine. He also has a record-breaking oat crop. From 80 acres seeded to oats, he threshed 8,000 bushels weighing 40 lbs. to the bushel. Mr. Bower also had a few acres of barley, which, however, only threshed a good, fair average. To sum the matter up, from his present crop off 400 acres, Mr. Bower garnered the enormous total of 22,000 bushels of grain, from which he estimates that he will make a net profit, after paying all expenses of over \$10,000.

The above is an absolutely truthful record of Mr. Bower's achievements. This gentleman has no land for sale, and is not particularly interested in "booming" Southern Alberta. Mr. Bower is prepared to make affidavit to the facts as recited.

Mr. M. Bolinger, who purchased lands from the Canadian Pacific Railway Company near Gleichen, in 1907, completed his threshing on October 17th, 1908. His wheat went 50 bushels to the acre, weighed 66 lbs. to the bushel, and sold at 78c. Mr. Bolinger estimates that this one crop will pay for his land.

LASTING QUALITY OF BOW VALLEY SOILS.

(From "Calgary Herald, 19th September)."

"Seventeen years ago the yield from this field of 38 acres was 117 bushels of oats per acre, and today we have completed threshing the wheat crop off the same area, with the result that the tally shows 53 bushels to the acre."

The above statement was made yesterday to a "Herald" representative, who had journeyed to the farm of D. D. Davidson, some 12 miles from Calgary, and one mile from Shepard. A wonderful and encouraging record for Alberta, and more especially for Bow Valley lands.

A LARGE FARM.

This splendid farm consists of 1,500 acres, and this year 525 acres were under crop, consisting of winter wheat, barley and oats, and plans are being laid for largely increasing the area under crop.

A large part of this year's wheat is off land that was broken in June and July of last year, and the yield from this land is going to average at least 40 bushels to the acre.

The portion going 53 bushels to the acre was, of course, off old land, and goes to show what this country is capable of once proper farming methods are introduced. The barley which was raised on last year's wheat lands went 44 bushels to the acre. The wheat has been sold at 79c. for No. 1 and 76c. for No. 2, and in conversation with grain men it was stated that little or none would go below grade No. 2.

In the course of a chat with J. S. Belyea, who, in company with his father and two brothers, runs the large farm, it was learned that they expected at least 10,000 bushels of wheat this year. His talk was as follows:

"When we undertook to look after this project we found only 100 acres broken. In 1906 we had only 12 horses, but now that number has been increased to 20, and it will be necessary to increase this number or secure a steam plowing outfit of our own.

HOW IT FIGURES OUT.

"Apart from our grain we go in for hogs extensively, and this year up to the present time, we have turned off \$1,321 worth of bacon, besides keeping ourselves supplied with fresh pork, and we now have over \$800 worth of porkers fitting themselves for the market.

"Our barley has returned us 5,242 bushels off 125 acres, which is a creditable record for this country."

THE WINTER WHEAT AREAS OF THE UNITED STATES AND CANADA.

A COMPARISON.

The majority of the winter wheat producers of the United States are located within the "Inland Empire" of the Pacific States of the Union, and, as has already been pointed out, these pages are naturally chiefly addressed to them. Our aim is to show them that it will pay them to sell their high-priced lands in Idaho, Washington and Oregon, and transfer their interests to the Canadian Pacific Irrigation Block. There is, however, some danger of a certain amount of misapprehension dwelling in their minds as to the quality of the winter wheat lands of Southern Alberta, this we desire to clear up.

The winter wheat lands of the "Inland Empire" states are generally covered with sage brush in their natural state, presenting all the characteristics of arid or semi-arid lands, and, in some cases, they resemble the lands embraced in the Great American Desert. The lands of Southern Alberta are of a totally different nature. During the summer season they are covered with a thick coat of green grasses, testifying to the admirable quality of the soil, and bearing no indications of semi-arid conditions.

It is instructive to compare the statistics bearing upon winter wheat production of Southern Alberta, with portions of the United States where land values are extremely high. The highest yielding winter wheat farms in the United States are located in the Pacific division, where the yield per acre is often twice as great as in any other portion of the Union. First class winter wheat lands throughout Washington, Oregon, Idaho and California, would range in value from \$50 to \$100 per acre, and it would appear that these farms are able to pay interest on their capitalization. This company is offering winter wheat lands for sale at prices ranging from \$13.00 to \$18.00 per acre, and we propose to show that a larger revenue can be made out of this Company's lands than from similar lands in the Pacific States.

The first item for consideration is the cost of production, and it may be stated that the cost of winter wheat production, per acre, in Southern Alberta, is very much less than in the most of the other sections of America; in fact statisticians after exhaustive tests agree that the cost of producing wheat ready for market is from \$6.50 to \$7.50 per acre. Instances, without number, are on record, where fields of wheat in Alberta have yielded over 50 bushels per acre. The average yield in the Bow Valley Irrigation Block, which by the way

produced the highest average for the province in 1908, was 31.45 bushels of wheat to the acre. Figuring this wheat at \$1.00 per bushel, which price was easily obtained in the fall of 1908 and spring of 1909, it is found that the profits from wheat raising in the Bow Valley amounted to \$24 per acre. If the same methods were adopted here as prevail in the winter wheat producing states of the Pacific slope, there can be no question that the cost of harvesting a crop in Southern Alberta will cost slightly less than there. Our soil works up a little more readily, the price of labor in Southern Alberta is somewhat less, and at the present time we can purchase horses a little more cheaply in Canada than on the American side. Taxation per acre is vastly smaller in Southern Alberta than on the other side of the line, and other items entering into the cost of production will show a small balance in favor of Southern Alberta. So much for cost of production.

We will now consider results. A glance at the rainfall statistics incorporated in the last part of this booklet, reveals the fact that during the growing season we will receive an average monthly rainfall east of Calgary of 3.46 inches. During the growing season, that is from May to August inclusive, the average monthly rainfall at Moscow, Idaho, is 1.40 inches; Lewiston, Idaho, 1.09 inches; Walla Walla, Washington, 0.90 inches; Spokane, Washington, 1.04 inches. The total annual average rainfall for Spokane is 18.22 inches; Walla Walla, Washington, 18.27 inches, and Lewiston, Idaho, 15.54. The average annual rainfall for the Bow Valley district has been 19.6 inches. These figures are all based on the most recent 10 year period. The above would seem to indicate that Southern Alberta crops would have decidedly the best of it. In dealing with final results, we find that our expectations are realized, as the following table will show:—

**AVERAGE YIELD PER ACRE OF WHEAT, 1902-1908,
FOR THE PACIFIC STATES AND THE
BOW VALLEY DISTRICT.**

	1902	1903	1904	1905	1906	1907	1908
Idaho.	22.1	21.1	22.9	28.2	24.4	25.03	30.0
Washington.	22.2	20.3	22.2	24.6	20.8	26.0	24.5
Oregon.	20.0	18.2	19.0	18.6	20.0	23.4	23.2
California.	10.9	11.2	10.8	9.3	17.1	15.0	14.6
United States	14.5	12.9	12.5	14.5	15.5	14.0	14.4
Bow Valley District	24.02	23.40	28.67	32.18	26.0	winter 31.45	spring 24.64

Comparison here has only been carried back as far as 1902, for the simple reason that prior to that time there was little or no winter wheat raised in the Bow Valley district, the production being confined solely to spring wheat, which, of course, materially reduced the average yield per acre, and, therefore, would not apply in a comparison of purely winter wheat production.

Sufficient has been said to establish clearly in the ordinary mind, that the Winter Wheat lands of Southern Alberta are even more productive than those of the Pacific States, and as little or no difference exists in regard to the value of the wheat on the Canadian and American sides, the question naturally arises: "Why are winter wheat lands worth \$50 to \$100 per acre in the Pacific States, while more productive lands can be purchased at prices ranging from \$13 to \$18 per acre in Southern Alberta?"

One important reason for this paradoxical state of affairs is not far to seek. Years ago the value of Oregon, Washington and Idaho wheat lands were not very much in excess of the prices at which Southern Alberta wheat lands are now offered for colonization. It is evident that wheat production in the Pacific States has reached its limits. In 1906 the area under winter wheat in Oregon was 712,000 acres. In 1881 it was 738,000 acres. This shows a shrinkage during the past quarter of a century. The area under winter wheat in the State of Washington has steadily increased and reached the maximum in 1904. In 1906 there was a shrinkage of over 200,000 acres. The State of Idaho had a greater area under winter wheat in 1905 than in 1906 of 30,000 acres. The State of California had a greater acreage producing winter wheat in 1871 than in 1906, and only fifteen years ago the wheat crop of this state was valued at \$60,000,000, while the estimated value of the 1909 crop is only \$7,000,000.

The burden of the above argument is simply that agricultural lands never reach their maximum value until all available arable lands in any particular state or district are brought under cultivation or otherwise utilized, when it becomes a mere question of the average net profit per acre such lands are capable of producing and what valuation such profit represents interest on. This factor almost entirely fixes the value per acre of a farm in the fully developed district. "Inland Empire" farms pay interest on a \$100 valuation per acre, and there is no more new land to bring under cultivation, hence this valuation.

Southern Alberta, on the other hand, is in its very infancy of development. No matter how productive her broad acres might be, she does not, at the present moment, possess the other conditions that fix the value of land on a basis of its



Binders at Work on the Farm of Morris Adler, Namaka.

productive capacity. The law of supply and demand comes in. Southern Alberta has more land than her present population can occupy, and, consequently, a premium must be offered to induce population to come in and settle on the land. The premium offered to colonists by the Canadian Pacific Railway Company for the occupation of its winter wheat lands is a considerable one. It is no less than selling lands worth at least \$75 per acre, on a basis of productive capacity, at prices ranging from \$13 to \$18 per acre. This is a business proposition that will appeal to the practical farmer anywhere in the United States, but especially those of the "Inland Empire," who realise the large profits that are to be made in winter wheat farming and who have previously reaped the benefit of enormous advances in land values such as will unquestionably take place in Southern Alberta within the next few years.

WINTER WHEAT PRODUCTION AND IRRIGATION.

Sufficient has been said in the preceding pages to convince the most sceptical reader that winter wheat can be and is

being most successfully produced on the non-irrigable areas of the Canadian Pacific Railway Irrigation Block. Winter wheat in Southern Alberta is essentially a non-irrigated crop. Nevertheless, while we are anxious that no misapprehension should exist in the mind of the prospective colonist in regard to the fact, that the non-irrigable areas of Southern Alberta are undoubtedly the most productive and cheapest winter wheat lands on the continent of America to-day, we do not by any means, desire to go on record as maintaining that the production of winter wheat under irrigation is not also a paying proposition.

Having water available for distribution on the land, possibilities arise in winter wheat culture that cannot be realised on non-irrigated lands in Southern Alberta or elsewhere. In common with all agricultural countries of the civilized world, Southern Alberta during occasional seasons receives a rainfall insufficient in its total volume, or so irregular in its distribution, as to preclude the possibility of producing a first class crop. This is the case in all agricultural countries almost without exception, where irrigation is not available.

Again, every good farmer aims at perfection, and while in most years he will harvest an excellent crop of winter wheat, yet it is seldom that an additional yield of a few bushels per acre could not be added by the judicious application of water just at the critical time when the farmer feels that a good soaking rain would mean hundreds of dollars to him, and the much desired shower does not come. On the irrigated farm he has rain "on tap." Some years irrigation of winter wheat would not be of any advantage at all. Most years one application of water would be a profitable practice, and when the drouth demon makes his appearance, as he does everywhere, sooner or later, two or three applications of water saves the situation, and would simply transform an indifferent crop into one giving perhaps the highest yield per acre on record. When the rainfall is slight, the weather as a rule is warm, and it will be readily understood that with extremely hot weather and an unlimited supply of water, the conditions for a record yield of winter wheat would be about perfect.

We do not, however, wish the reader to misunderstand the situation. Irrigation of winter wheat is practised purely and simply as a crop insurance, not as a necessity. Winter wheat without irrigation in Southern Alberta is generally considered one of the safest and best paying crops in America. Winter wheat under irrigation introduces the element of insurance at a small cost, and the highest returns might, therefore, be confidently expected every year, no matter whether the rainfall be over or under the normal volume.

Winter irrigation, or the application of water during the non-growing season, has become recognized in many parts of the Western States as a most potent factor in agricultural development. Experiments have shown that water can be stored in the soil for some time by proper methods of cultivation. There cannot be any doubt that the irrigation of fall planted grain in the autumn and again in the following spring if necessary, cannot fail to be most beneficial.

The general agricultural practice throughout the Western States and the Prairie Provinces of Canada is tending more and more towards confining crop production to summer-fallow lands. It has become the universal practice throughout all the Pacific winter wheat producing states, in fact, wherever farming under light rainfall conditions prevails. Upon the winter wheat farms in Southern Alberta, the summer-fallow practice is also in vogue, as has already been pointed out. The introduction of the summer-fallow principle has absolutely revolutionized farming operations in the sub-humid belt of Western America, where the average annual rainfall ranges below 20 inches, to which belongs the greater part of Western America, including the prairie provinces of

Canada. The chief object is simply to store in the soil two seasons' rainfall for the purpose of producing each crop. The land lies idle during the year preceding the crop, and is treated to periodical surface cultivation. The general introduction of summer-fallowing will practically remove the danger of crop failure through drouth, such as is apparent in a good many portions of the West to-day. With an abundant supply of moisture available by artificial means, however, the main object of summer-fallowing largely disappears. It, therefore, follows that summer-fallowing will be eliminated on irrigated lands, thus leaving the whole crop areas available for production each year, instead of only one-half of it. This is an important feature of the irrigated farm.

While the irrigation of cereal crops is not expected to be a leading feature of the development of the irrigated areas of Southern Alberta, for the very simple reason that the irrigated field can be made to produce crops that will give a much larger return per acre than wheat, oats, or barley, no reason exists why even cereals cannot be successfully produced under artificial watering and at a lower cost per bushel than on non-irrigated lands.

An objection often raised is that the cost of water per acre and the application thereof would be prohibitive in the case of winter wheat. This is a fallacy. The difference in cost per acre between conserving moisture by means of summer-fallowing and providing it by irrigation in Southern Alberta, is largely in favor of the latter. The cost of proper surface culture of fallow lands would not be less than \$2.00 per acre for the season. The cost of water would be 50c. per acre, and the application thereof not more than another half-dollar. This shows a considerable margin in favor of irrigation. The cost of an irrigated acre within the Canadian Pacific Irrigation Block is \$30.00 and upwards, the non-irrigated winter wheat lands up to \$18.00 per acre. It is, therefore, clear that an acre of irrigated land requires a smaller capital outlay than two acres of non-irrigated lands, which would be required under the summer-fallow system. On top of this is the certainty of results under irrigation every year.

The opinion seems generally to prevail amongst those acquainted with the subject, that it is somewhat unusual to grow winter wheat under irrigation. This is an entirely erroneous conclusion. In the State of Montana, the total area in winter wheat annually, up to the last census, was 92,132 acres. Out of this area, 37,710 acres were produced under irrigation. This amounts to over 40 per cent. of the total, and similar figures can be quoted from other irrigating states. It should be remembered that agricultural conditions in the State of Montana and those in Southern Alberta are



Our Development Department Allows Farming by Proxy for the First Year.

very nearly alike, and in view of that fact, it is reasonable to suppose that what is good farming practice in Montana will be equally as profitable in Southern Alberta.

THE COMPANY'S DEVELOPMENT POLICY.

The general literature issued by the Company, makes it clear that the whole aim and object the Company has in view in expending millions of dollars upon canal construction and colonization efforts within the Irrigation Block is to create there "the densest and most prosperous agricultural community in Western America." The Company is hardly a land selling or a water selling concern, in the strict sense of the word. The selling of land and water for irrigation is merely a means to an end, the end being the creation of railway traffic.

In pursuance of this object, the Company has naturally laid itself out to facilitate to the greatest possible extent the early development of all lands sold. In order to accomplish this, a special department of the Company's service has been

created, which has for its object the performance of work for its clients upon lands purchased by them, prior to their going into occupation thereon. This department is in the hands of men well qualified to obtain the best services for clients at the minimum cost. As this somewhat novel departure has particular bearing upon winter wheat culture, we call attention to it here.

All work entrusted to this Company will be done under contract with responsible parties. It is the intention of the Company that the personal services of our development staff shall be given free of charge to our purchasers. It is realised that a great many purchasers are not in a position to move on to their lands at once, and would prefer to have the preliminary work done by contract, so as not to lose any time, and to enable them to get a crop growing and a cash revenue from the farm shortly after going into occupation, in time to take charge of the crops. The Company's development department stands for the best farming practice only, and does not encourage purchasers of land to break the same after the end of July nor to seed down to winter wheat after the 1st of September.

In order to convey some idea of the cost of farm development work where it is done by contract, we may say that our average contract prices have been as follows:

Breaking, 3 inches deep	\$3.00 per acre
Harrowing, each operation	35c. per acre
Discing, three times	\$1.50 per acre
Seeding, not including seed	60c. per acre
Seed, per bushel	Market-price
Fencing, per mile, 3 wires	\$100 to \$125
Hauling seed grain from nearest station to land,	
per mile per bushel	¼c.

Treating grain with bluestone or formalin, 3c.	
per bushel. But not less than	\$2.00
Boring wells, using steel casing	\$2.25 to \$3.00 per foot
Boring wells, using iron casing	\$2.00 to \$2.75 per foot

Upon application at the Company's offices at Calgary or at any of our agencies a circular may be obtained outlining in full the conditions upon which farm development work will be undertaken by the Company on behalf of purchasers of lands within the Irrigation Block.

TRANSPORTATION AND LAND VALUES.

Every farmer, and particularly every wheat farmer, knows the importance of reducing the cost of transporting his grain from the farm to the shipping point. It is generally estimated that a farmer can better afford to transport his grain for wheat production to a distant shipping point, than to transport his grain of the same quality, as a free market, to a nearer shipping point. The explanation is simple. The cost of grain from the greater distance is covered by the price paid for the grain at the shipping point. The perpetual transportation cost of grain produced at the nearer shipping point, however, is not covered by the price paid for the grain at the shipping point. It is so considered that a farmer can represent a good profit on a year's transactions.

When the Canadian Pacific Railway Company decided to expend millions of dollars for the purpose of distributing the life-giving waters of the Bow River over the contiguous valley, it was with the full expectation that the traffic resulting from this project would reach such proportions that the investment would be amply justified. The Company is, as has been pointed out previously, in the land selling business only in order to colonize its land holdings. The permanent business of the railway is to carry traffic. It will, therefore, be readily understood that it would be short-sighted policy

indeed for that company to omit to supply the most satisfactory transportation facilities, where its development investment, with traffic in view, is as great as it will be in the Irrigation Block.

Concurrently with outlining the project for the construction of the Irrigation Canals, a very complete system of railway branch line construction was also taken into consideration to take care of the traffic that will be created, and it is safe to say that, with the dense settlement now taking place in this area, railway extension will follow more rapidly than in any other portion of Canada. The point of the argument is, that the Canadian Pacific Railway is not liable to create traffic at enormous expense, without also creating facilities for taking care of it. If that Company failed to provide the necessary transportation facilities, other railway companies would, no doubt, avail themselves of the opportunity to take care of this profitable traffic by extending their lines into the Irrigation Block, which would distinctly be bad policy for the Canadian Pacific Railway Company.

As is fully explained in the Company's general literature, the whole of the Irrigation Block is traversed from south-east to north-west by the main line of the Canadian Pacific Railway, and the Western Section, while served on the extreme west by the Calgary to Edmonton branch, is also served by a line running north from Langdon. Irricana was made a junction point on this line, and work upon another line running east and west commenced. This latter branch will practically parallel the main line for the entire length of the block. All lands offered for sale at the present time are thus within easy distance of the most important artery of communication Canada possesses. As quickly as further new branch lines are required and decided upon, the approximate routes of such extensions are shown on the maps from which the Company is now selling its lands. While the complete network of branch extensions obviously cannot be provided long in advance of settlement, it is absolutely a safe proposition to state that just as soon as the traffic is available, there will be railway lines all through the Block to take care of it.

The distance from the Irrigation Block to the Pacific Coast is only about 640 miles, via the main line of the Canadian Pacific Railway. This line will within the next couple of years be the most economical grain route to tide waters in Western America. With the completion of certain revisions now under construction, the grades all the way through will be such that heavy west-bound traffic can be handled most economically. These developments will facilitate grain traffic to Pacific points, and materially aid the Alberta grain grower.

Any remarks upon the subject of transportation facilities within the Irrigation Block would necessarily be incomplete without some observations regarding the beneficial effect the completion of the Panama Canal will have upon the winter wheat lands situated within this block. The completion of this undertaking will cut Pacific ocean rates to Europe in two, and will bring the Southern Alberta wheat fields so close to the British market that they will practically be the nearest considerable grain producing areas to that market on the American continent in point of cost of transportation. The construction of this canal will absolutely transform the wheat growing business on the Irrigation Block by materially increasing the value per bushel of all wheat produced therein.

This gain will have such a marked effect upon land values, that those who purchase land now may confidently look forward to an enormous appreciation in their investment within a few years when the west bound traffic from the Irrigation Block will have the choice of the European and Oriental markets, with practically an equal cost of transportation, if anything a little in favor of European market points.

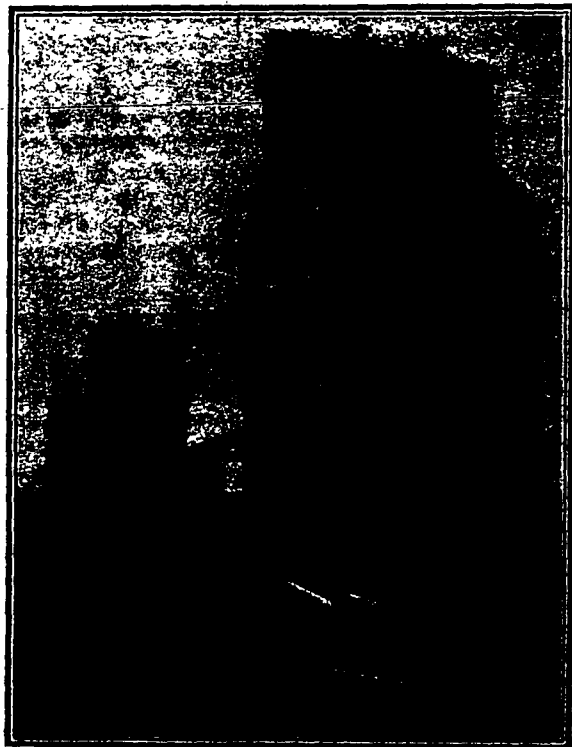
THE HANDLING OF THE WINTER WHEAT CROP.

Closely allied with the question of transportation is that of handling. The more easily and economically the wheat can be handled, the smaller is the cost of production, which includes the labor attendant to handling the crop until it is delivered on board cars at the nearest station, and, to some extent, takes into consideration the cost of handling the product until it is delivered to the ultimate purchaser.

Early in the history of grain production on the Pacific Slope of the United States, an effort was made to open up a market in the Orient. The steamers that carried the grain to the Oriental points, and for that matter to European points, were not specially adapted to carrying grain in bulk, and no terminal facilities in the way of elevators were then available at the Pacific Coast or at the receiving points in the Orient. Under the circumstances it was necessary for the Pacific Coast farmers to deliver their grain sacked, and this again led to the introducing of a system of handling grain in sacks at the farm.

Winter wheat production on a large scale in Alberta is, comparatively speaking, of recent development; and in inaugurating the grain trade there, the tendency naturally was to introduce the most advanced handling facilities that had proved successful elsewhere. The grain trade from Minnesota, the Dakotas, Manitoba and Saskatchewan, is entirely a European trade, the handling of which has been developed

along the lines most economical and approved. Grain elevators are provided at terminal shipping points, the grain carrying boats on the great lakes are specially designed for the purpose, and the point has now been reached when the loading of wheat at lake ports is a purely mechanical operation, practically until it reaches the consumer's hands in the British market or elsewhere. This method was adopted in connection with developing the handling facilities for winter



Constructing Additional Grain Storage at Gleichen, 1909.

wheat grown in Alberta. The grain is handled exclusively in bulk at the elevators, at inland points in such a way that the farmers can haul their grain from the thresher or from the granary, and upon the arrival of their wagon at the elevator it is weighed and unloaded without shovelling. The handling at an elevator of a hundred bushels of wheat requires no manual labor and can be performed in less than three minutes. From the elevator the grain is loaded in cars entirely by

machinery, and without any expenditure for manual labor. The grain elevators at terminal points receive the grain in bulk, and it is unloaded and cleaned by machinery in the shortest possible time, and these terminal elevators are again equipped with machinery for loading the grain direct into ocean-going vessels.

As has been observed above, the Pacific Coast grain trade is on a basis of sacked grain. The cost of providing the sacks is about 4c. per bushel. At terminal points the grain has to be unsacked, cleaned and re-sacked, and it can readily be imagined how much greater the cost of handling these sacks by truck will be, in comparison with the cheap and efficient method of handling the grain in and out of the cars and elevators by means of steam or gasoline power. It is evident that the difference in the cost of handling wheat entirely by machinery, as against the primitive method of handling by manual labor, would undoubtedly be practically the same as applying advanced methods in handling any other commodity or material in comparison with manual labor. Of course the cost of handling the grain in sacks must necessarily fall upon the producer. The value of the grain to the producer in any other country will be export price, less the freight, commission and handling charges. This being the case, the cheaper the handling charges can be made, the higher must be the value of each bushel of wheat to the farmer.

In purchasing winter wheat lands in Alberta, the farmer may thus rest assured, that he will always reap the benefit incidental to a grain trade based upon the most economical manner of handling his product, all the way from the farm to the ultimate destination. It is clear that this represents an additional value upon every bushel of wheat produced in Southern Alberta as compared with that section of the continent where the above described primitive methods of grain handling prevail. This is no unimportant point to bear in mind in considering the advantage offered to the winter wheat farmer within the Canadian Pacific Irrigation Block.

MARKETS.

After everything has been said in regard to the productive capacity of our winter wheat lands, and the modern facilities for transporting and handling the crop, the most important point in connection with winter wheat production in Southern Alberta still remains to be considered, namely, the price that the farmer may expect for his crops. All through these pages comparisons have been made, more or less, with the winter wheat areas of the Pacific States, as these districts

contain the nearest considerable area of winter wheat lands to Southern Alberta, and the same comparison naturally suggests itself when dealing with the subject of markets.

Generally speaking, the Pacific States produce a vastly greater quantity of wheat than can be absorbed at home, and the same conditions prevail in Southern Alberta, and will for many years to come. It, therefore, follows that the export wheat from the Pacific States and from Alberta meet in the common markets of Europe and the Orient, and the value of the wheat in the export markets, therefore, fixes the price to the farmer at home. Consequently, other things being equal, the value of a bushel of wheat of a given grade, will be precisely the same in Vancouver, Canada, as at Portland and Puget Sound points. Owing to the more economical facilities for handling on the Canadian side, it is very reasonable to suppose that the value would be slightly higher at Canadian Pacific ports, were it not for the fact that the inland transportation from Southern Alberta points to tide water will be a little in excess of the average mileage from the winter wheat fields of the Pacific States to the Pacific Coast. The one, however, should offset the other.

In making comparisons of the prices that prevail at inland points in Washington, Oregon and Idaho, as against the prices in Alberta, it is quite possible, that under certain conditions local prices may be a little higher in the states mentioned than in Alberta. On the other hand, the opposite may very easily be the case. When both countries are on a strictly export basis, elevator prices in Southern Alberta will be slightly higher than elevator prices at inland points in the Pacific States. It is a curious fact that in the season of 1907, Washington white winter wheat was being imported into the city of Vancouver and was being purchased there at local prices, the producer on the other side of the line having to pay a duty into Canada amounting to 12c. per bushel. This is proof positive that during that season, at least, the farmers in Alberta must have been receiving a far better price for their wheat than the producer in the States comprising the "Inland Empire." No reason whatever exists why a bushel of wheat should not, almost at any time, be worth as much in Calgary, Alberta, as in Walla Walla, Washington, or at any other inland wheat centre tributary to the Pacific Coast, and it is probable that if statistics were examined, it would be found that wheat will generally be worth more in the City of Calgary than at inland points in the State of Washington.

It is a very difficult matter to establish a fair comparison in regard to the wheat prices of two countries, where the grades are not established on the same basis. It may, how-



The Last Chapter in "The Farmer's Year."

ever, be of some value to those interested in Southern Alberta winter wheat lands to give comparative quotations. The Calgary prices quoted are for No. 1 Alberta Red, the standard wheat produced in Alberta. The prices at interior points in Washington, Oregon and Idaho are on No. 1 Turkey Red, exactly the same class of wheat:—

Date of Quotation.	Interior points in Wash., Ore. & Idaho.	Interior points in Alta, Canada.
Aug. 1st, 1907	68c. per bushel	70c. per bushel
Sept. 1st, "	70c. " "	72c. " "
Oct. 1st, "	72c. " "	82c. " "
Nov. 1st, "	75c. " "	80c. " "
Dec. 1st, "	70c. " "	74c. " "
Jan. 1st, 1908	73c. " "	82c. " "
Feb. 1st, "	69c. " "	77c. " "
Mar. 1st, "	70c. " "	82c. " "
Apl. 1st, "	72c. " "	77c. " "
May 1st, "	74c. " "	75c. " "
June 1st, "	75c. " "	73c. " "

A further feature in regard to the market conditions for the Southern Alberta winter wheat crop, as compared with that on the other side of the line, is the fact that Alberta wheat today commands a premium in Oriental markets over that produced in Washington, Oregon, Idaho and California. The wheat raised in the Pacific States has always been of the soft variety. Consequently, the enormous mills established years ago at Portland, Tacoma and Seattle, were designed entirely to handle wheat of that nature. These mills were the pioneers in the Oriental flour and grain business, and

succeeded in establishing in those markets a demand for that class of flour. They do not handle the hard wheat at all, as they have not the necessary machinery available for doing so, and it was, therefore, left to the Alberta flour millers and grain dealers to do the missionary work in the Oriental markets in regard to introducing hard wheat.

EXPERT OPINIONS.

The rapid development of Southern Alberta's winter wheat lands has naturally attracted almost world wide attention, and, as a result, this country has been visited by a large number of men prominent in the commercial and agricultural world, who have made contributions to the press expressing their views of what they saw.

PRESIDENT JACKSON'S OPINION.

Soon after winter wheat production commenced to assume large proportions in Southern Alberta, those engaged in the grain trade naturally became interested in the commercial end of the proposition. Samples were submitted to Mr. William S. Jackson, president of the Chicago Board of Trade, who recently visited Western Canada, and has had very considerable experience in the handling of Western winter wheat. His report was as follows:—

"The samples of red and white winter wheat from Alberta have been submitted to our large millers, to Chief Grain Inspector Smiley, to the expert buyers of our elevators, and unofficially to the grain committee of our board. It was the

judgment of all that the wheat was exceptionally fine, and would grade No. 1 in this market, which commercially is an almost unknown quality. Many here were aware that experiments in growing winter varieties of wheat had been made in the great Canadian Northwest, but few were aware of the results. The samples excited a good deal of interest, and several parties expressed a desire to own land producing such a quality of grain."

OFFICIAL REPORT OF PROFESSOR TEN EYCK

Kansas today easily ranks as the greatest winter wheat producing state of the Union. She has attained this position within the past decade. The farmers in Kansas have, however, found that their wheat deteriorates in quality, and the introduction of first class seed is, therefore, one of the greatest questions of the day, and the grain experts of that State are spending considerable time and money in finding a convenient source of supply. In pursuance of this policy, A. M. Ten Eyck, Esq., Professor of Agronomy, was sent by the Kansas State Agricultural College to Southern Alberta for the purpose of investigating conditions there. Below will be found his report. Coming from an entirely unbiased quarter, Professor Ten Eyck's statements should carry weight and convince even the most sceptical that as a winter wheat country Alberta is without a peer. This report was published as Press Bulletin No. 157 of the Agricultural Experiment Station, Kansas State Agricultural College:—

"In accordance with the order of the Board of Regents of the Kansas State Agricultural College and Experiment Station, in carrying out the provisions of the Seed Wheat Bill passed by the State Legislature last winter, authorizing the investigation and importation of seed wheat, the writer visited the province of Alberta, Canada, and made a study of the growing of winter wheat in that province.

"The territory known as Alberta is situated in Western Canada, and is an immense tract seven hundred miles in length north and south, with an average width of two hundred and eighty miles. The province is bounded on the south by the State of Montana, on the west by British Columbia, and on the east by the province of Saskatchewan. The Rocky Mountains extend along the entire western border of the province, and the best winter wheat lands lie along the base of the mountains, usually within view of the perpetually snow-capped peaks. Winter wheat is most successfully grown in the area bordering the mountains, one hundred to one hundred and fifty miles from the southern boundary line. However, the Hon. Frank Oliver, Minister of Interior, Ottawa, Canada, makes the published statement

that winter wheat has been tried and may be grown successfully in many districts in Western Canada, from the one hundred and tenth meridian to the foothills, and from Edmonton, three hundred and fifty miles north, to the international boundary line. Spring wheat, and in fact all of the common cereal grains, may be grown successfully throughout this region. The writer saw fields of oats, which he estimated would yield eighty bushels to the acre. Spring wheat is as yet much more extensively grown in Alberta than winter wheat, but the growing of winter wheat is rapidly increasing; in fact, the acreage has increased from a few thousand acres in 1903, to several hundred thousand acres in 1907, while the total winter wheat production of Alberta in 1906 was in the neighborhood of six million bushels. There is no question but that certain parts of the province of Alberta are well suited for the growing of winter wheat.

Soft winter wheat was first grown in Alberta some twenty years ago, and seed from this original sample has been successfully planted and matured every year since its introduction.

Hard winter wheat has been grown in Alberta only six years, but the acreage planted each year has increased rapidly and the hard wheat is now largely replacing the soft wheat. In fact, most of the winter wheat growing area of Alberta is much better adapted for growing hard wheat than soft wheat, since the soil and climate favors the development of hard wheat of excellent grade and quality. The writer has never seen hard red winter wheat superior in quality to that grown uniformly almost throughout the winter wheat growing area of Alberta. Also very large yields are secured. The following farmers in Alberta vouch for producing over fifty bushels to the acre in 1906: Thos. H. Woolford, Frank Leavitt, Pitcher Bros., Jas. Neilson, Johanas Anderson.

"The writer examined large fields of wheat in the Cardston and Spring Coulee districts in Southern Alberta, which he estimated would yield forty-five bushels per acre. The present crop is not considered quite equal to the crop of last season on account of the cold, late spring, characteristic of the whole of the United States as well as Canada.

"In 1902 Mr. E. E. Thompson, a Nebraska farmer, who settled at Spring Coulee, Alberta, imported a carload of Nebraska or Kansas grown Turkey wheat. This was the ordinary Turkey wheat bought in the general wheat market, and was not very pure in type, and a very poor grade of wheat, according to Mr. Thompson and others who sowed it. However, the grain produced the first season was superior in quality to the original seed, and the wheat has continued to improve. The grain has become larger and plumper, darker

in color and harder in texture than the original sample, until 'Alberta Red,' as it is called, has made a class of its own in the Canada wheat market, and is recognized as one of the world's best bread wheats.

"There is only one variety of Alberta Red. All of the hard red winter wheat grown in Alberta today, so far as the writer could learn, has come from the original Thompson importation. Although the Alberta Red is wheat of excellent quality, yet there are objections to it as seed wheat for Kansas. (1) It is originally nothing more than our ordinary Kansas wheat of the Turkey type, but not so pure as some of the varieties we are growing today, such as the Turkey No. 4 Kharkof, and Malokoff. (2) Again, the Alberta Red has become mixed with a smooth-headed, soft winter wheat, called the Odessa. This mixture with soft wheat does not usually affect the commercial grade of the wheat, but it injures its value as seed. I found no fields of Alberta Red which did not contain some of this mixture of Odessa, the percentage of mixture varying from one to twenty-five per cent. This mixture has occurred from volunteer wheat, by sowing the Alberta Red in fields where Odessa wheat had been previously grown.

"By a careful selection of the field it is possible to secure Alberta Red seed wheat which contains only a small amount of the Odessa wheat. Doubtless, also, if there is a demand for small wheat for exportation to this State the farmers of Alberta will take greater pains to select pure samples of Alberta Red wheat for future planting. Meanwhile, W. H. Fairfield, Superintendent of the Experimental farm for Southern Alberta, has already secured from this station thirty bushels of Kharkof and Turkey No. 4 for planting this fall in Alberta, with the purpose of securing pure seed of our best producing varieties of hard red winter wheat, not only for distribution in that province, but for the production of a superior grade of pure seed wheat for exportation to Kansas and other States.

"On account of the long distance and slow transportation it was found to be impracticable to import any large quantity of Alberta wheat for general seeding in Kansas this fall. The writer secured a bushel sample from several of the more noted wheat growing districts. This will be shipped by express as soon as the wheat is threshed, and the grain will be planted in the experimental plots at Manhattan and Ft. Hays, in order to make a comparison of the Alberta wheat with our best home grown varieties. If it seems advisable, Alberta wheat may be imported in large quantities for general distribution next fall.

"The soil and climate of Alberta is admirably suited for the production of the best quality and highest grade of hard red winter wheat. The soil, a dark, deep mellow loam, is abundantly fertile. The climate is ideal for the production of hard wheat. The winters are colder than Kansas winters, yet not severely cold, being tempered by the warm 'Chinook' winds, which blow over the mountains from the Pacific Ocean. Again the summers, though fairly long, are not hot, being moderated by the perpetual snow-capped mountains to the west. The wheat grows for a long period, matures slowly, and develops fully, making large and plump grains. There is no rust, the straw being perfectly clean and bright. Winter wheat is usually sown in August, the seeding often preceding the harvesting. Thus it is not possible as a rule to grow two crops of winter wheat in succession on the same field.

"Again, the climate is dry; the average annual rainfall in the winter wheat belt varies from twelve to twenty inches at the different localities where records have been kept. The rainfall gradually increases from south to north, and is greatest near the mountains, gradually decreasing as the distance from the mountains increases. . . . Although the State has not been able to import Alberta wheat for general seeding this fall, private enterprise has made greater progress, and two cars of Alberta Red wheat have been imported and are now being distributed to Kansas farmers by the Ellsworth Mill and Elevator Company, Ellsworth, Kansas, and the Walnut Creek Milling Company, Great Bend, Kansas. The wheat was collected and shipped by the Pacific Elevator Company, Calgary, Alberta, and the writer was assured by the manager of the company that the wheat was the best he could secure, and judging from the samples of each car which have been received at the Agronomy Department office, the wheat is excellent quality. This seed wheat is being sold at \$2.00 per bushel—a fair price, considering the cost of transportation and the price paid in Canada, \$1.00 per bushel. There is also a duty of 12c. per bushel on seed wheat imported from Canada. If the planting of Alberta Red wheat proves to be to the best advantage of Kansas farmers, this duty on seed wheat should be removed.

"The writer wishes to see a general test made of this Alberta wheat in order that data may be secured by which we may conclude whether to import largely again next fall."

A. M. TEN EYCK,

Professor of Agronomy.

Manhattan, Kansas.

ALBERTA RED AT PORTLAND EXPOSITION

In 1905 an International Exposition was held at Portland, Oregon, to commemorate the centennial of the Clark Centennial. This exhibition was held in the very export and commercial centre of the great winter wheat producing area of the Pacific States. An exhibit of Alberta grown winter wheat was made by the Canadian Pacific Railway, not for competitive purposes, but merely as a part of a general exhibit to attract the attention of farmers in the winter wheat growing areas of the Union, who would naturally be present at the exposition held in their midst. In these expectations the Company was not disappointed.

At the last moment, however, the Company's representative agreed to enter the wheat exhibit for competition, with the result that it was awarded the Gold Medal for quality and the Bronze Medal for general arrangement. This wheat competed against the finest winter and spring wheat samples that could be found in America.

The following are the official notifications of the awards made, and on pages 42 and 43 of this booklet will be found a facsimile of the Gold Medal Diploma sent the Company.

LEWIS & CLARK CENTENNIAL EXPOSITION

Division of Exhibits

Portland, Oregon, Oct. 9th, 1905

The Canadian Pacific Railway Co., Alberta, Canada

We beg to inform you that the jury under Group 44 awarded your exhibit a Gold Medal on collective exhibits of wheat, as per entry.

LEWIS & CLARK CENTENNIAL EXPOSITION

Division of Exhibits

Portland, Oregon, Oct. 9th, 1905

The Canadian Pacific Railway Co., Alberta, Canada

We beg to inform you that the jury under Group 44 awarded your exhibit a Gold Medal on general arrangement of exhibit.

LEWIS & CLARK CENTENNIAL EXPOSITION

Division of Exhibits

Portland, Oregon, Oct. 9th, 1905

It is perhaps superfluous to mention to the judges or judges who made the award that the quality of the wheat amongst the leading exhibitors was of the highest.

Alberta Red has been awarded the Gold Medal for quality and the Bronze Medal for general arrangement.

premier wheat has carried off the championship at the Trans-Missouri Dry Farming Congress, and in a class open to the world.

Speaking of the 1908 wheat which secured the world's championship, Superintendent Fairfield, of Southern Alberta's Experimental Farm, has this to say: "When the sample was sent to Cheyenne, I had no idea of its being entered in the competition. I merely sent a sample of our Alberta Red, grown on non-irrigated land to Dr. V. T. Cook, Chairman of the Exhibit Committee, as he wished Canada to be represented. The sample was not prepared for competition, but was taken at random from a 2000 bushel bin that had been once put through a fanning mill since being threshed. The field yielded at the rate of 54 bushels to the acre."

W. C. McKillican, of the Canadian Department of Agriculture, seed branch, in speaking of 1909 Alberta Red securing the world's championship at the recent Congress held at Billings, Mont., said: "The wheat was a very ordinary sample, weighing only 44 lbs. to the bushel, and was not in any way nearly equal in quality to the wheat securing the first prizes at our various local seed fairs."

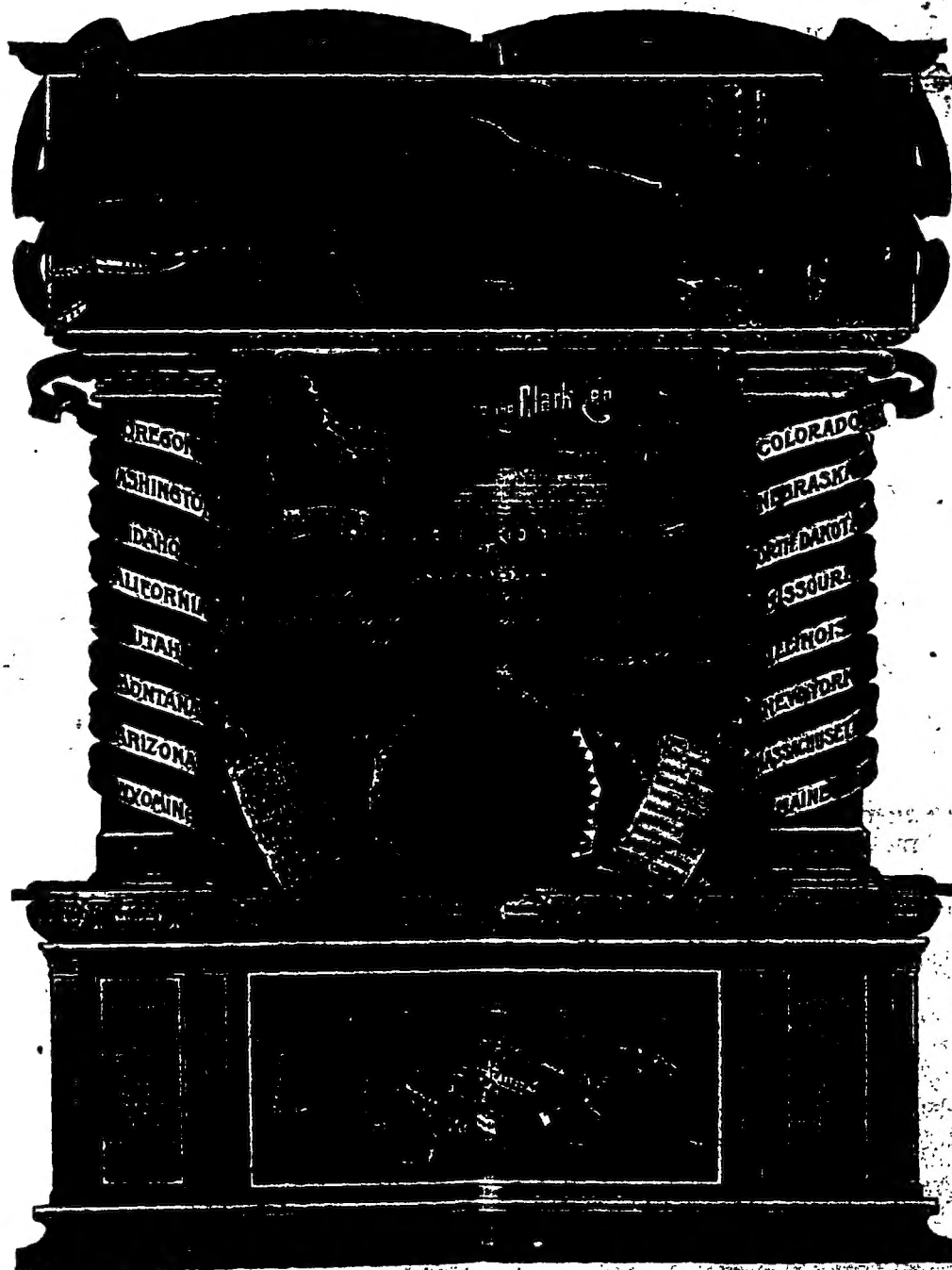
The reader will, therefore, realize that the quality of our wheat must be vastly superior to wheat grown south of the line.

In 1909 the Alberta Provincial Seed Fair was held in Calgary, and the championship and Farm Crops Trophy for wheat was awarded to John C. Buckley, of Gleichen. This class was open to the province and the award was a striking triumph, proving the Bow Valley the premier wheat growing area in Alberta, which is now recognized as having possibilities in wheat growing unequalled in any other section of the continent.

RAINFALL STATISTICS.

Having cold and sunshine in Southern Alberta, all that remains to insure crops in this favored region is moisture. The following meteorological statistics, compiled by the Dominion Government are for seven years, and show an average rainfall of 19 inches for this period:—

Year	Inches	Year	Inches
1902	16.8	1903	21.98
1904	20.5	1904	11.16
1905	16.2	1905	16.51
1906	23.01	1906	16.14
1907	25.41	1907	16.45
1908	21.31	1908	17.96
1909	24.71	1909	16.15



While the foregoing table gives the annual precipitation for the past twelve years, a few comparisons with other districts south of the International boundary line will doubtless be of interest to those who are either looking for land here or in the Western or Southern States. And that this comparison may be of the greatest value to the reader, the average rainfall for the growing months only—the months that generally make or ruin the crops—will be taken into consideration.

As the statistics compiled by the United States Department of Agriculture cover the years 1895 to 1904, inclusive, the comparison will be made for those years only.

	May.	June.	July.	Aug.	Aver.
Paulina, N. D.	2.42	3.75	2.74	2.44	2.84
Bismarck, N.D.	2.50	3.25	2.60	1.80	2.75
North Platte, Neb.	3.00	3.20	2.40	2.40	2.54
Dodge City, Kan.	3.40	3.90	3.50	1.50	3.08
San Antonio, Tex.	3.40	2.00	2.80	1.50	2.43
Moscow, Idaho	2.88	1.26	.70	.76	1.40
Lewiston, Idaho	1.82	1.60	.47	.48	1.09
Walla Walla, Wash. ...	2.00	1.11	.46	.40	.99
Spokane, Wash.	1.45	1.49	.71	.52	1.04
CALGARY, CANADA .	2.76	4.04	3.51	3.50	3.46

It will be noted from the foregoing table that, with the exception of the month of May, Calgary had a greater average rainfall during the ten years under consideration than any of the other districts mentioned. But what the figures do not show is that during that period of time most of these states had at least two dry years with their attendant crop failures, and that there were many months in these districts when the rainfall amounted to less than one inch. While these districts to the south were having dry years that killed off the small fruits, the alfalfa and the trees, the Bow Valley district was blessed with abundant crops.

The open character of the country in this portion of the Province of Alberta, its clear, dry atmosphere, the abundance of sunshiny days, its elevation, from 1,400 to 3,400 feet above the sea level, and the fresh breezes that blow across its plains, all tend to make it one of the most healthful countries in the world. There is an entire absence of malaria, and there are no diseases peculiar to the country.

CANADIAN CROP RETURNS.

		Wheat:			
		Spring	Winter	Oats	Barley
New Brunswick	10 yrs. to 1901—	14.1	14.8	25.8	21.6
Nova Scotia	"	—15.2	13.4	25.8	23.5
Ontario.	"	—17.5	19.6	32.6	27.5
Prince Edward I. ...	"	—17.5	—	27.7	23.1
Quebec.	"	—14.1	13.7	24.9	24.3
Manitoba.	"	—18.30	—	18.5	19.1
Saskatchewan.	"	—19.88	—	34.98	24.45
Alberta.	1898 to 1905—	20.69	21.03	35.67	26.50

Alberta.	1904—	—	18.33	32.58	26.12
	1905—	—	21.03	35.67	26.50
	1906—	—	23.34	40.80	29.04
Bow Valley District.	1904—	—	28.67	39.79	31.42
	1905—	—	32.18	43.41	32.01
	1906—	—	26.00	49.00	31.00

COMPARATIVE CROP STATISTICS.

AVERAGE YIELD PER ACRE OF WHEAT, 1899-1908,
OF THE PRINCIPAL WHEAT PRODUCING
STATES OF THE UNION, COMPARED
WITH THE BOW VALLEY
DISTRICT.

State or Territory	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
New Jersey.	14.5	19.1	16.8	16.0	14.0	13.3	16.4	18.3	18.5	17.3
Maryland.	14.1	19.5	17.2	14.7	12.5	13.4	16.3	18.0	19.0	16.4
West Virginia.	9.3	9.8	10.9	7.7	10.2	10.1	12.3	12.7	12.2	13.0
Ohio.	14.2	6.0	15.3	17.1	13.7	11.5	17.1	20.4	16.3	16.0
Indiana.	9.8	5.3	15.8	16.0	10.0	9.2	18.3	20.7	14.4	16.6
Michigan.	8.4	7.6	11.1	17.7	15.5	9.8	18.5	13.1	14.5	18.0
Wisconsin.	15.5	15.5	16.1	18.1	15.6	15.5	16.6	16.3	14.1	18.2
Minnesota.	13.4	10.5	12.9	13.9	13.1	12.8	13.3	10.9	13.0	12.8
Iowa.	13.0	15.6	16.2	12.7	12.4	11.6	14.2	15.7	13.4	17.2
North Dakota.	12.8	4.9	13.1	15.9	12.7	11.8	14.0	13.0	10.0	11.6
South Dakota.	10.7	6.9	12.9	12.2	13.8	9.6	13.7	13.4	11.2	12.8
Nebraska.	10.3	12.0	17.1	20.9	15.7	13.6	19.4	22.0	18.1	17.2
Kansas.	9.8	17.7	18.5	10.4	14.1	12.4	13.9	15.1	11.0	12.6
Texas.	11.1	18.4	8.9	9.0	13.4	10.7	8.9	11.5	7.4	11.0
Wyoming.	18.8	17.6	24.5	23.6	20.9	22.1	25.4	28.7	28.5	25.4
Colorado.	23.7	22.6	24.1	18.0	26.6	22.8	25.0	32.5	29.0	21.0
New Mexico.	13.8	21.0	21.5	17.1	18.4	12.8	22.2	25.0	24.0	25.0
Utah.	20.7	20.9	20.5	21.2	22.6	26.6	26.4	27.4	28.8	26.5
Idaho.	24.2	20.8	21.2	22.1	21.1	22.9	28.2	24.4	25.3	28.2
Washington.	22.7	23.5	29.1	22.2	20.3	22.2	24.6	20.8	26.0	18.8
Oregon.	19.2	13.8	21.1	20.0	18.2	19.0	18.6	20.0	23.4	20.8
California.	14.1	10.3	13.0	10.9	11.2	10.8	9.3	17.1	15.0	14.6
Bow Valley Dist.	21.31	21.96	22.60	24.02	23.40	28.67	32.18	26.0	Wtr. 31.48	Spr. 24.84

SELLING PRICES AND TERMS.

The Company has decided to place this land upon the market at prices and upon terms that will enable the practical farmer with small capital to create a prosperous home within the Irrigation Block. The Company wants the settler to put the greatest possible portion of his capital into productive improvements. The Company is more interested in his success than it is in collecting from him the largest possible cash payment. Only a nominal first payment is asked.

The price of this land ranges from \$13.00 to \$18.00 per acre for non-irrigable land and for the irrigable areas the average cost of construction per acre for the district is added. The price of irrigated land is \$30.00 per acre and upwards. These prices are, however, subject to revision.

The terms of payment are such that the settler will have made more out of his land long before his final payment becomes due than the land has cost him. The uniform terms upon which the Company disposes of its lands are:—One tenth of the purchase price in cash and the balance in nine equal annual instalments with interest at 6 per cent. on the unpaid balance.

While we will dispose of any area of non-irrigable land to one individual, we will not, however, sell any client more than 160 acres of irrigable land, nor any combination of areas including more than 160 acres of irrigable land. Only, in very exceptional cases, will we depart from this rule. It is our experience that such irrigable tracts are ample under our conditions of soil, climate, etc. Intelligent effort upon the part of the owner of such an area will result in the gaining of an independence in a very few years.

CROP PAYMENT TERMS.

A uniform initial cash payment of one-tenth of the purchase price of the land will be required on all lands sold on crop payment terms. The purchaser undertakes to cultivate his farm according to regulations set forth in the contract, and within one year from date of purchase agrees to erect upon his land a habitable house, a stable, sink a well and fence his land as set forth in the regulations.

Payment of the unpaid balance due upon land purchased under crop payment contract is required to be made as follows:—By delivery to the Company of one-half of all grain grown upon the said lands, market prices on day of delivery to elevator will be allowed. The Company also requires a payment of one dollar per ton for each ton of sugar beets, alfalfa and timothy grown upon the land. All money so collected by the Company will be applied against the unpaid balance.

First Class Passenger Rates from Points in the United States to Calgary and Return.

(Watch Papers for Dates of Excursions or Change of Rates)			
Atchison, Kan.	\$41.00	St. Louis, Mo.	44.00
Chicago, Ill.	41.00	St. Joseph, Mo.	41.00
Council Bluffs, Iowa ..	40.00	Sioux City, Iowa	40.00
Kansas City, Mo.	41.00	Omaha, Neb., via St.	
Leavenworth, Kan. ...	41.00	Paul	40.00
Minneapolis, Minn. ...	33.00	Omaha, Neb., via Leth-	
Peoria, Ill.	41.00	bridge	41.50
St. Paul, Minn.	33.00		

Publications of the Canadian Pacific Railway Colonization Department.

Besides this free booklet, the following publications may be obtained, postage prepaid, on application to the Company at Calgary, Alberta, Canada:—

"FACTS." A folder, profusely illustrated, dealing with general agricultural conditions in Southern Alberta, and the famous Bow River Valley. Treats on Soil, Climate, Combination Farms, Canadian Irrigation Laws, the production of cereals, Alfalfa, Timothy, Stock-Raising, and giving useful hints to those who desire to farm either on the irrigated or non-irrigated lands of the Company. **FREE**

"PUBLIC OPINION." A publication giving the opinions of the most prominent writers and agricultural experts of the continent who have visited the Bow Valley, coupled with the statements of farmers actually settled on the land. **FREE**

"IRRIGATION FARMING." Diversified farming and stock raising is the foundation upon which all irrigation projects rest. This book gives the business aspect of the industry in the Irrigation Block, and shows that upon its rich alfalfa meadows live stock feeding and dairying lead to certain success. Every up-to-date farmer nowadays is a stockman, and this book will appeal to that class. **FREE**

"SETTLER'S GUIDE." A text book, useful to any farmer, giving valuable information in regard to farming practise upon irrigated and non-irrigated lands in northerly latitudes. This work was compiled for the Company at great expense both with regard to time and money. **FIVE CENTS**

"PICTURESQUE BOW RIVER VALLEY." A splendid album of views, measuring 10 x 12 inches, bound with heavy silk cord, and in every respect a work of art, and an interesting souvenir of Southern Alberta. These twenty-four views bring the varied beauties and possibilities of the great Province of Alberta and the Irrigation Block within the range of your vision. **ONE DOLLAR**

FREIGHT RATES ON SETTLERS' EFFECTS FROM PRINCIPAL POINTS IN THE UNITED STATES TO CALGARY.

(Subject to Change at Any Time.)

	Carload lots of 24,000 lbs.	Less than Carload lots.
Portland, Oregon, via Sumas, B.C.	\$152.00	\$1.52 per cwt.
Chicago, via N. Portal, Sask.	85.00	1.27 " "
Kansas City, via N. Portal, Sask.	101.00	1.52 " "
Omaha, via N. Portal, Sask.	99.00	1.47 " "
St. Paul, via N. Portal, Sask.	45.00	.67 " "
Denver, via St. Paul & N. Portal, Sask.	125.00	2.52 " "
New York, via Buffalo	195.00	1.63 " "
New York, via Ogdensburg	173.40	1.50 " "
Buffalo, New York	156.00	1.24 " "
Helena, Montana	109.00	1.36 " "
Idaho Falls, Idaho	298.40	3.32 1/2 " "
Spokane, Wash.	118.40	1.32 1/2 " "
From Ontario Points	136.50	1.14 " "